BLUEWATER

Programmable Inrush Breaker Switch

IP 69K / 20A / 120A Inrush / 8 prg Amp

Features

- Electrical Rating 1 Channel 20A, 2 Channels 10A max.
- 8 programmable Amp positions : 3,5,6,7.5,10,15,20,0.
- Easy setup the breaker current by press and hold the button.
- Inrush Protection, our switch hold 120Amp Inrush for 120us before fault mode trips !
- Stainless Steel SS316 Body and IP69K Waterproof Rating.
- Protection from Salt Spray (Fog) Test (EN ISO 9227-17).
- 20g Bump Shock Test Approved.
- Switch meet Flammability Rating UL 94 V2 and All material will be non-flammable or will be 105°C spec.
- When the pump is running, the LED turns red automatically

Specification

8 programmable Amp	3, 5, 6, 7.5, 10, 15, 20, 0
Trips current	>3.6, 6, 7.2, 9, 12, 18, 22
Illuminated	Blue,Green,Red,Yellow, Purple , White LED
Voltage Rating	9VDC ~ 24 VDC
Current Rating	20A 12VDC, 80A Surge (200 ms)
Reverse Polarity Protection	24 VDC
Initial Contact Resistance	≤ 10 mΩ
Overload Protection	≥120A, Flashing white LED
	Outputs do not function
	Switch is reset by press button
Mechanical Life	50,000 Cycles
Electrical Life Contact	10,000 Cycles
Resistance Insulation	50 MΩ Maximum
Resistance	1000 MΩ Miminum
Dielectric Strength	2,000 VAC
Operate Storage Temp	-20°C ~ +55°C
Travel	1.50mm
Moistrue Protection	IP69K
Contact Material	Silver Alloy
Actuation Force	4 N
Panel Thickness	1-6mm
Mounting Nut Torque	5-14Nm
Construction Material	
Body Material	Stainless Steel SS316
Lens Material	PC material rated to 105°C
Switch Plug & Dongle	Nylon 6 rated to 105°C
Deutsch Recommended Part#	
Large socket	0462-203-12141
Small socket	0462-209-16141
Dummy Plug	14017-ZZ

Part No.

Function	Parts No.	Off / 1st On	2nd On / 3rd On	Rear Mark Page
Off-On	9060-1113	(Blue) / Red	X / X	3 Red dot
Off -(On)	9060-2113	(Blue) / Red	X / X	3 Green dot
Nav/Anc	9060-3114	(Blue) / Green	Red / X	4 White dot
Off-On-On	9060-3113	(Blue) / Green	Red / X	4 Blue dot
Off-On-On-Both	9060-3115	(Blue) / Green	Red / Yellow	5 Yellow dot
Off-(On)-(On)	9060-2123	(Blue) / Green	Red / X	5 Green dot
BW DT Connector	9053-3914	5 pin Deutsch Connector		
Dummy Plug	114017-ZZ	for DT Connector		

Replaceable Push Button Actuator

Style	Parts No.
Full Translucent	9451-1001
SS Ring	9451-1002
SS Ring (Black)	9451-1003
SS Ring (Titanium)	9451-1004
Laser Logo(Blank)	9451-1005
Laser Logo (Red)	9451-1019
Laser Logo(Cust) Custom Text	9451-0001~ -0220

Standard Legend Imprinting Code : 6 7

Bluewater Enterprises LLC
Miramar Beach, Florida
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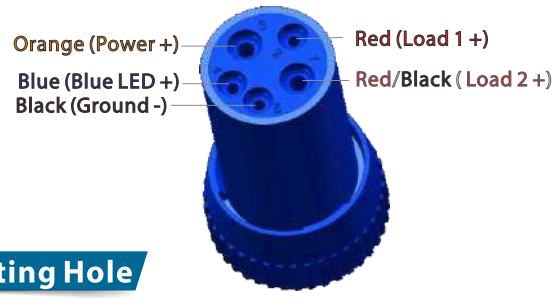
202211

BLUEWATER

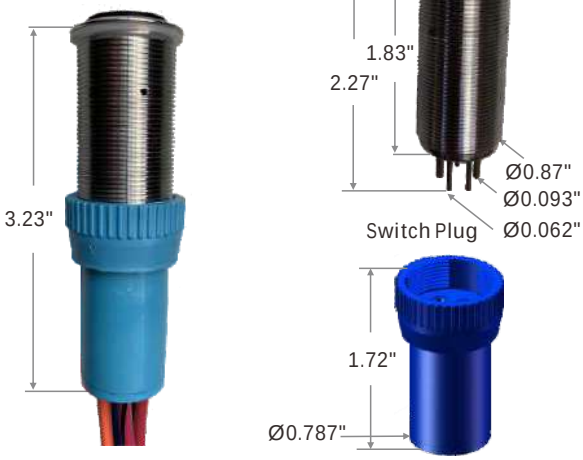
Programmable Inrush Breaker Switch

IP 69K / 20A / 120A Inrush / 8 prg Amp

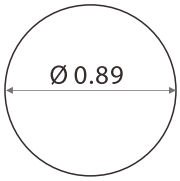
Recommended Wiring



Size Diagram



Mounting Hole

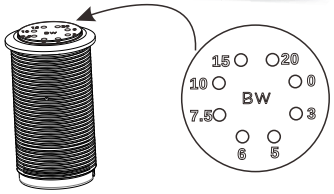


Black 16awg	Ground -
Blue 16awg	Blue LED +12Vdc
Red 14awg	Load1 +12Vdc
Orange 14awg	Power +12Vdc
Red/Black 14awg	Load2 +12Vdc

WARNING

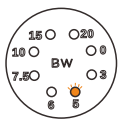
- Dummy plugs required in Bluewater DT connectors for all non-wired (empty) pin locations.
- Failure to include dummy plug in non-wired (empty) pin locations in Bluewater DT Connector voids water tight rating and warranty.
- See part number for dummy plugs on page one.
- Wire sizes must meet minimum OD requirements listed on page one. Failure to meet the OD requirements voids water-tight rating and warranty
- Only use Bluewater DT connector, other connector will cause damage & void warranty.

Program the switch



Program Actuator

- 8 programmable Amperage positions
- Set breaker : 3,5,6,7.5,10,15,20 Amps
- Set breaker to "0" : non breaker



- Suitble for : 9060-1113, 9060-3114, 9060-3113 and 9060-3115

At OFF position, push and hold the button in about 3 or 4 seconds it will flash once and then in a few more seconds it will flash twice, release the button and you are in program mode.

- Suitble for : 9060-2113 and 9060-2123

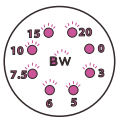
At OFF position, short push the button for 7 times, at 8th times push and hold the button in about 3 or 4 seconds, it will flash once and then in a few more seconds it will flash twice, release the button and you are in program mode.

- Program Mode: Amp Setting

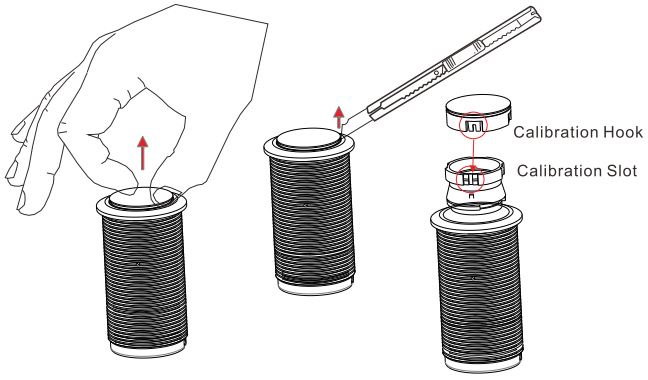
When in program mode it will show the amperage setting of the switch,

To change the amperage, push the switch in and it switches to the next highest amp setting.
When you reach the desired amp setting, push in the button and hold it in until it flashes blue and you are now set at the new amperage

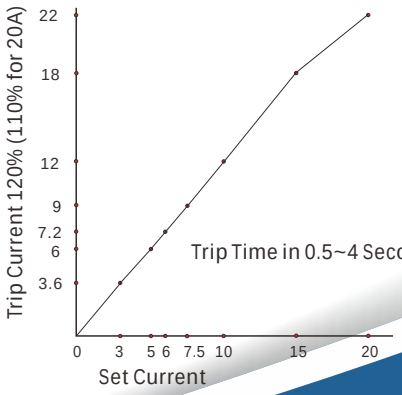
If you want to change this amp setting just repeat this process to program mode and change the amperage setting of the switch



Replacing Actuator



- TRIP : The load current greater than set current 120% (110% for 20A set current), the breaker switch will trip in 0.5 to 4 seconds.
  - Switch flash PURPLE showing it has been tripped.
- RESET : Switch is reset by cycling through OFF position. .



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9060-1113 Off- On

Blue LED (Off) Red LED (On)

Operation

- Press turns on the device (LED turns Red).
- Press turns off the device (LED turns Blue)

*Laser Etched Actuator in **Daytime Mode***
LED light is off.

*Laser Etched Actuator in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

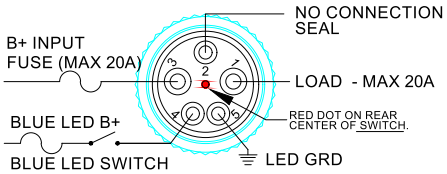
*Laser Etched Actuator in **On Mode***
The Red LED lets you know that the device is on.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, output does not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

REAR PLUG VIEW

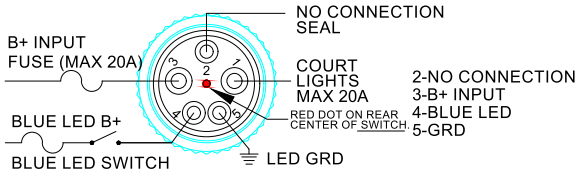
OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
1ST PUSH - LIGHTS RED [LOAD 1 ON]
2ND PUSH - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

COURTESY LIGHTS EXAMPLE

OFF CAN BE BLUE BACKLIT - APPLY B+ TO 4.
1ST PUSH - LIGHTS RED [COURT LTS ON]
2ND PUSH - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

9060-2113 Off - (On)

OFF-[1 M ON ON] - [OFF] BLU/RED

Operation

- Press and hold the button to turns on the device (LED turns Red).
- Release the button to turns off the device (LED turns Blue)

*Laser Etched Actuator in **Daytime Mode***
LED light is off.

*Laser Etched Actuator in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

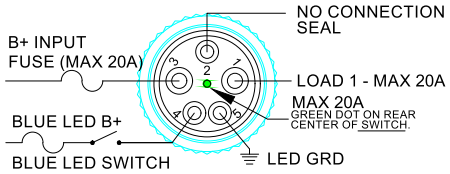
*Laser Etched Actuator in **On Mode***
The Red LED lets you know that the device is on.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, output does not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

REAR PLUG VIEW

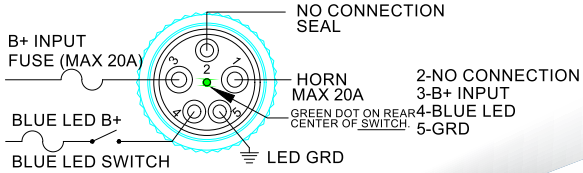
OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
MOM PUSH - LIGHTS RED [LOAD 1 MOM ON]
RELEASE - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 4, 5 ARE DEUTCH DP [SMALL] FEM TERM
POS 2 SEAL

HORN EXAMPLE

OFF CAN BE BLUE BACKLIT - APPLY B+ TO 4.
MOM PUSH - LIGHTS RED [HORN ON]
RELEASE OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

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9060-3114 Nav/Anc Switch

OFF-[1 & 2 ON]-[2 ON & 1 OFF]

Operation

- Press turns on the Navigation & Anchor lights (LED turns Green).
- Press leaves Anchor light on and turns off Navigation light (LED turns Red)
- Press turns off Anchor light (LED turns Blue)

*Laser Etched Actuator in **Daytime Mode***
LED light is off.

*Laser Etched Actuator in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

*Laser Etched Actuator in **Nav/Anc Mode***
The Green LED lets you know that the Nav and Anchor switches are in on position.

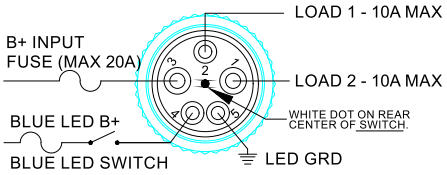
*Laser Etched Actuator in **Anchor Mode***
The Red LED lets you know that the Anchor switch is on.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, outputs do not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

REAR PLUG VIEW

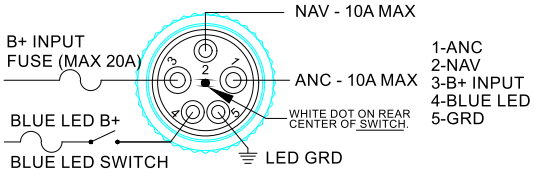
OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
1ST PUSH - LIGHTS GREEN [BOTH 1 & 2 LOADS ON]
2ND PUSH - LIGHTS RED [ONLY LOAD 2 ON]
3RD PUSH - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

NAV/ANC EXAMPLE

OFF CAN BE BLUE BACKLIT - APPLY B+ TO 4.
1ST PUSH - LIGHTS GREEN [BOTH NAV & ANC LOADS ON]
2ND PUSH LIGHTS RED [ONLY ANC LOAD ON]



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

9060-3113 Off-On-On Switch

OFF-[1 ON & 2 OFF]-[2 ON & 1 OFF]

Operation

- Press turns on Load 1 (LED turns Green).
- Press turns on Load 2 (LED turns Red)
- Press turns off Load 2 & 1 (LED turns Blue)

*Laser Etched Actuator in **Daytime Mode***
LED light is off.

*Laser Etched Actuator in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

*Laser Etched Actuator in **Load 1 Mode***
The Green LED lets you know that the Load 1 device is in on position.

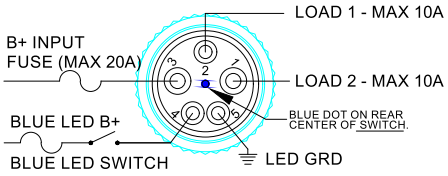
*Laser Etched Actuator in **Load 2 Mode***
The Red LED lets you know that the Load 2 deivce is on position.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, outputs do not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

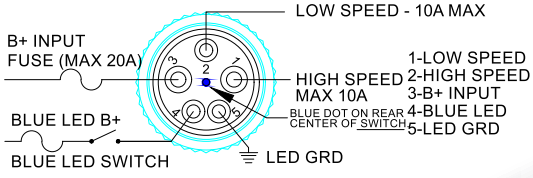
REAR PLUG VIEW

OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
1ST PUSH - LIGHTS GREEN [LOAD 1 ON 2 OFF]
2ND PUSH - LIGHTS RED [LOAD 2 ON 1 OFF]
3RD PUSH - OFF



2 SPEED WIPER EXAMPLE

OFF CAN BE BLUE BACKLIT - APPLY B+ TO 4.
1ST PUSH - LIGHTS GREEN [LOW ON, HIGH OFF]
2ND PUSH - LIGHTS RED [HIGH ON, LOW OFF]
3RD PUSH - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

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9060-3115 OFF-1-2-BOTH

OFF-[1 ON & 2 OFF] - [2 ON & 1 OFF]

Operation

- Press turns on Load 1 (LED turns Green).
- Press turns on Load 2 (LED turns Red)
- Pres turns on both Load 1 & Load 2 (LED turns Yellow)
- Press turns off Load 2 & 1 (LED turns Blue)

*Laser Etched Actuactor in **Daytime Mode***
LED light is off.

*Laser Etched Actuactor in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

*Laser Etched Actuactor in **Load 1 Mode***
The Green LED lets you know that the Load 1 device is in on position.

*Laser Etched Actuactor in **Load 2 Mode***
The Red LED lets you know that the Load 2 deivce is on position.

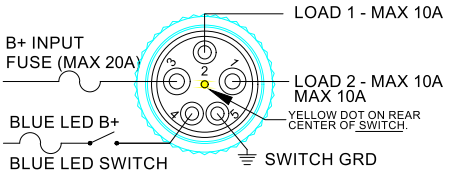
*Laser Etched Actuactor in **Both Mode***
The Yellow LED lets you know that the Load 1 & Load 2 deivces are both on position.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, outputs do not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

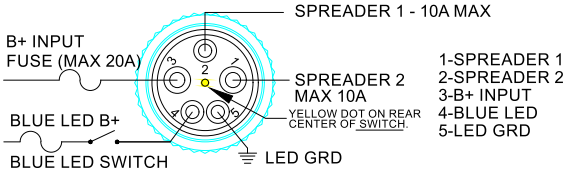
REAR PLUG VIEW

OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
1ST PUSH - LIGHTS GREEN [LOAD 1 ON, LOAD 2 OFF]
2ND PUSH - LIGHTS RED [LOAD 2 ON, LOAD 1 OFF]
3RD PUSH - LIGHTS YELLOW [LOAD 1 & 2 ON]



2 LIVEWELL EXAMPLE

OFF CAN BE BLUE BACKLIT - APPLY B+ TO 4.
1ST PUSH - LIGHTS GREEN [LIVEWELL 1 ON, LIVEWELL 2 OFF]
2ND PUSH LIGHTS RED [LIVEWELL 2 ON, LIVEWELL1 OFF]
3RD PUSH LIGHTS YELLOW [LIVEWELL 1 & 2 ON]



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 2, 4, 5 ARE DEUTCH DP [SMALL] FEM TERM

9060-2123 Dual Momentary

OFF-[1 M ON] - [2 MON] GRE/RED

Operation

- Press and hold the button turns on Load 1 (LED turns Green).
- Press and hold the button turns on Load 2 (LED turns Red).
- Release the button to turns off Load 1 & 2 (LED turns Blue)

*Laser Etched Actuator in **Daytime Mode***
LED light is off.

*Laser Etched Actuator in **Nightime Mode***
The Blue LED provides great visibility of the function switches and lets you know that the swithes are in off position.

*Laser Etched Actuator in **Load 1 Mode***
The Green LED lets you know that the Load 1 device is in on position.

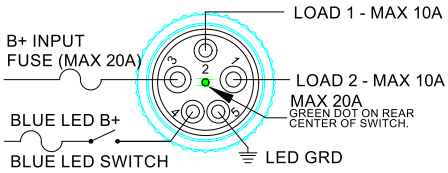
*Laser Etched Actuator in **Load 2 Mode***
The Red LED lets you know that the Load 2 deivce is on position.

*Laser Etched Actuator in **Inrush Protection Mode***
LED Flashing White.
Inrush Load Upto 120Amp, LED Flashing White, outputs do not funstion, Switch is reset by Press Button.

*Laser Etched Actuator in **Breaker Mode***
LED Flashing Purple.
Switch Trip while Load Current greater than 120% (110% 20Amp) set current, Switch is reset by Press Button.

REAR PLUG VIEW

OFF CAN BE BLUE BACKLIT - APPLY B+ TO TERM 4.
MOM 1ST PUSH - LIGHTS GREEN [LOAD 1 MOM ON]
MOM 2ND PUSH - LIGHTS RED [LOAD 2 MOM ON]
RELEASE - OFF



POS 1 & 3 ARE DEUTCH DTP [LARGE] FEM TERM
POS 4, 5 ARE DEUTCH DP [SMALL] FEM TERM
POS 2 SEAL

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9451-0001 ~0192 Legend Code

Custom Text Available

 0001	 0002	 0003	 0004	 0005	 0006	 0007	 0008	 0009	 0010	 0011	 0012
 0013	 0014	 0015	 0016	 0017	 0018	 0019	 0020	 0021	 0022	 0023	 0024
 0025	 0026	 0027	 0028	 0029	 0030	 0031	 0032	 0033	 0034	 0035	 0036
 0037	 0038	 0039	 0040	0041	0042	0043	0044	0045	0046	0047	0048
0049	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	0060
0061	0062	0063	0064	0065	0066	0067	0068	0069	0070	0071	0072
0073	0074	0075	0076	0077	0078	0079	0080	0081	0082	0083	0084
0085	0086	0087	0088	0089	0090	0091	0092	0093	0094	0095	0096
0097	0098	0099	0100	0101	0102	0103	0104	0105	0106	0107	0108
0109	0110	0111	0112	0113	0114	0115	0116	0117	0118	0119	0120
0121	0122	0123	0124	0125	0126	0127	0128	0129	0130	0131	0132
0133	0134	0135	0136	0137	0138	0139	0140	0141	0142	0143	0144
0145	0146	0147	0148	0149	0150	0151	0152	0153	0154	0155	0156
0157	0158	0159	0160	0161	0162	0163	0164	0165	0166	0167	0168
0169	0170	0171	0172	0173	0174	0175	0176	0177	0178	0179	0180
0181	0182	0183	0184	0185	0186	0187	0188	0189	0190	0191	0192

9451-0193 ~0220 Legend Code

Custom Text Available

LT BARS 0193	PORT BILGE 0194	STBD BILGE 0195	COURT / COURTESY 0196	MAIN LIVEWELL 0197	MAIN LIVEWELL RECIRC 0198	AFT BILGE 0199	FWD BILGE 0200	FLOOR LIVEWELL 0201	FLOOR LIVEWELL RECIRC 0202	RAW WATER PUMP 0203	FRESH WATER PUMP 0204
FLOOR DISCHRG 0205	TUNA TUBE 0206	25 QT BAITWELL 0207	SPARE 0208	NAV/ANC 0209	DOWN LIGHTS 0210	BOX LIGHTS 0211	LIVEWELL LIGHTS 0212	FWD SPREADER LIGHTS 0213	AFT SPREADER LIGHTS 0214	PORT SPREADER LIGHTS 0215	STBD SPREADER LIGHTS 0216
UNDER GUNNEL LIGHTS 0217	LIGHT BAR 0218	MODE 0219	WIPER WASH 0220								
HORN											

BLUEWATER ENTERPRISES

SMART SWITCH FLOW CHART

IS THE SWITCH BLINKING?

YES → WHAT COLOR?

NO → Check wiring size.

WHAT COLOR?

PURPLE

A slow PURPLE blink on a 9060 Series switch indicates Over Current. Press RESET.

Check amp setting. If excess of 20 amps, add load relay to output circuit of switch with an external circuit breaker.

Potentially faulty device.

WHITE

WHAT DEVICE?

TROUBLESHOOTING PARTS

Capacitor

1406-000-001

Choke

1400-000-001

Diode

1405-300-001

WASHDOWN PUMP →

Install an in-line choke (Part ID: 1400-000-001) in the wire between the switch output and the pump, as close to the pump as possible (above the waterline). This will suppress electrical noise and typically correct any pump or motor that repeatedly triggers an Over Current fault.
See Figure 1.

FRESHWATER PUMP →

Install an in-line choke (Part ID: 1400-000-001) in the wire between the switch output and the pump, as close to the pump as possible (above the waterline). This will suppress electrical noise and typically correct any pump or motor that repeatedly triggers an Over Current fault.
See Figure 1.

SEA CHEST PUMP →

Install a diode (Part ID: 1405-300-100) between the switch output and the device, with the cathode (grey part) facing the device.
See Figure 3.

BILGE PUMP →

Install a diode (Part ID: 1405-300-100) with the cathode facing the switch to prevent back-feeding from the 24-hour auto bilge circuit.
See Figure 2.

FIGURE 1

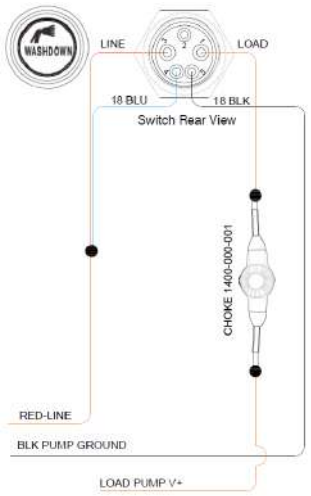


FIGURE 2

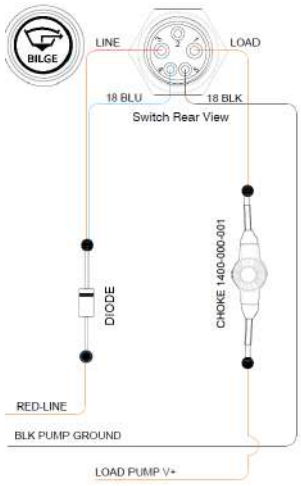
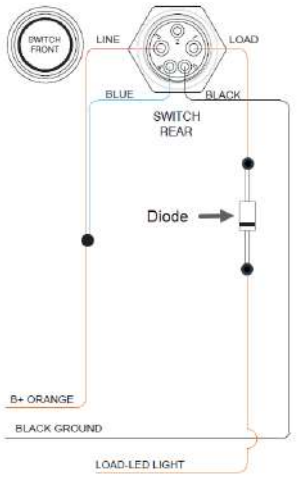


Figure 2: Designed for the 9058, 9059, 9060

FIGURE 3

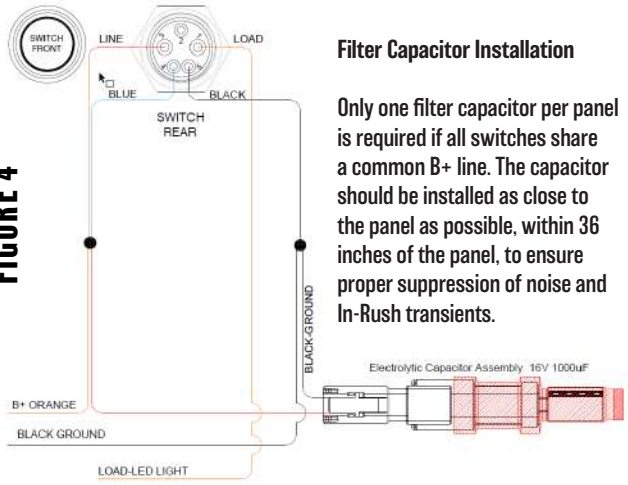


Bilge Pump Switch Installation

A diode is required on every bilge pump switch to prevent back-feeding and ensure proper operation. A choke is not typically necessary; however, if a choke is required, it should be installed as close to the pump as possible, above the waterline, to effectively suppress noise.

Figure 3: Designed for the 9057

FIGURE 4



Filter Capacitor Installation

Only one filter capacitor per panel is required if all switches share a common B+ line. The capacitor should be installed as close to the panel as possible, within 36 inches of the panel, to ensure proper suppression of noise and In-Rush transients.

GARMIN/ MFDS

→ Install a diode (Part ID: 1405-300-100) between the switch output and the device, with the cathode (grey part) facing the device.
See Figure 3.

LED LIGHTS

→ Install a diode (Part ID: 1405-300-100) between the switch output and the device, with the cathode (grey part) facing the device.
See Figure 3.

→ STILL BLINKING → Install a 16V 1000uF electrolytic capacitor (Part ID: 1406-000-001) across Line B+ and Ground near the LED switch. This stabilizes voltage and prevents In-Rush or Over Current faults. Note that faults may not appear until after extended operation, when voltage drops or temperature rises.
See Figure 4.

RELAY/ RELAY STYLE BATTERY SWITCH

→ Install a diode (Part ID: 1405-300-100) between the switch output and the device, with the cathode (grey part) facing the device.
See Figure 3.

→ STILL BLINKING → Install a 16V 1000uF electrolytic capacitor (Part ID: 1406-000-001) across Line B+ and Ground near the switch. This stabilizes voltage and corrects the issue creating the fault.
See Figure 4.

EVACUATION BLOWER/FAN

→ Install a diode (Part ID: 1405-300-100) between the switch output and the device, with the cathode (grey part) facing the device.
See Figure 3.

→ STILL BLINKING → Install a 16V 1000uF electrolytic capacitor (Part ID: 1406-000-001) across Line B+ and Ground near the switch. This stabilizes voltage and corrects the issue creating the fault.
See Figure 4.